

## Hotel Information

Each participant is responsible for making his/her hotel reservation.

A block of rooms has been reserved for *Training Course* participants at:

### The Argonne Guest House

(Managed by Sodexho)

9700 South Cass Ave.

Building 460

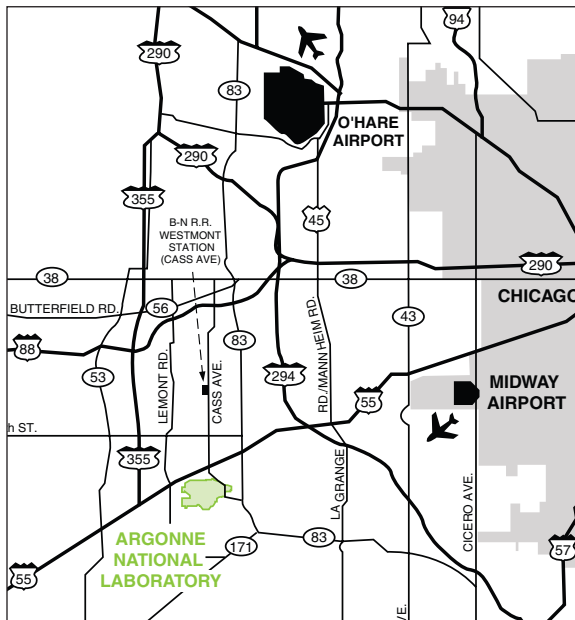
Argonne, IL 60439

(800) 632-8990 or (630) 739-6000

The rate is \$70.00 per night for a standard room.

When making your reservation, inform the hotel that you will be attending the ANL/DOE ASME Training Course. The hotel reservation deadline is **June 12, 2009**.

**Class will be held in  
Conference Room A  
at the Guest House**



**Judy Benigno**  
Bldg. 201, Rm. 1H-12  
Argonne National Laboratory  
9700 South Cass Ave.  
Argonne IL 60439



**EM Environmental Management**  
safety ❖ performance ❖ cleanup ❖ closure  
**DOE Packaging Certification Program**  
Office of Packaging and Transportation (EM-63)

# Training Course: Application of the ASME Code to Radioactive Material Transportation Packaging

**June 23–25, 2009**

Argonne National Laboratory  
Argonne, Illinois

Announcement also available at:  
<http://www.dis.anl.gov/>



## Description

The goal of the course is to provide guidance for the application of the American Society of Mechanical Engineers (ASME) Boiler & Pressure Vessel (B&PV) Code to packaging for the transportation or storage of high-level radioactive materials or fissile materials. The course objective is to facilitate the design, fabrication, examination, and testing of packaging that meets all the applicable ASME Code requirements and all the governing federal requirements and regulations.

The course will provide insight on the DOE/NRC packaging certification process, with examples drawn from real-world applications.

The target audience is DOE and contractor personnel, other agency personnel, and commercial packaging engineering personnel. Those responsible for design, fabrication, or evaluation of Type B or fissile material packaging, as well as preparing or reviewing the associated safety analysis reports, would also benefit.

## Staff

<i>Vik Shah</i>	Training Course Director
<i>Harriet Caracello</i>	Training Course Administrator
<i>Bud Fabian</i>	Sr. Quality Assurance Engineer
<i>Jie Li</i>	Chemical Engineer
<i>Yung Liu</i>	SARP Review Group Manager
<i>Ron Pope</i>	Mechanical Engineer
<i>Brent Shelton</i>	Mechanical Engineer
<i>Shiu-Wing Tam</i>	Materials Engineer
<i>Bill Toter</i>	Welding Engineer

## Guest Lecturers

<i>Savannah River National Laboratory</i>	
<i>Allen Smith</i>	Fellow Engineer
<i>Nuclear Regulatory Commission</i>	
<i>Gordon Bjorkmann</i>	Senior Technical Advisor
<i>Kim Hardin</i>	Project Manager, Spent Fuel Storage and Transportation Division

## Agenda

- Day 1: 8:00 a.m. – 5:00 p.m.  
Day 2: 8:30 a.m. – 5:00 p.m.  
Day 3: 8:30 a.m. – 5:00 p.m.

This classroom course, last given in March 2008 for the 10<sup>th</sup> time, consists of technical presentations, discussions, examples, and problem solving. The emphasis is on understanding the regulatory basis, current design practice, and engineering rationale for applying the ASME Code to packaging for radioactive materials. Course highlights include lectures on the following:

- Overview of federal regulations that govern transportation packaging for radioactive materials and overview of DOE and NRC guidance documents, including Regulatory Guides.
- General background and structure of the Code, with emphasis on the NUPACK Code (Section III, Division 3); Section III, Division 1 and Section VIII, Division 1 are also discussed.
- Current activities in the NUPACK Code, including strain-based criteria.
- Code and non-code structural materials, containment loading and design with emphasis on design-by-analysis rules, significance of stress limits, bolt stress analysis, behavior of bolted closure, thermal stress analysis, design for hypothetical accident conditions, and brittle fracture protection.
- Design of containment internal support structures, and buckling analysis, including Code Case N-284.
- Fabrication, weld qualification, examination and test requirements, and quality assurance.
- Design qualification by physical testing and containment requirements for leakage rates.
- Problem solving to illustrate the application of the Code.

## Course Material

All participants will receive a copy of the course instruction visuals, which are based on the ASME B&PV Code; selected key references; as well as a Certificate of Completion for the ASME Code Training Course. (Note: Participants are required to stay for the entire course in order to receive the Certificate of Completion.)

## Registration

Application of the ASME Code to  
Radioactive Material Packaging

June 23–25, 2009

Argonne National Laboratory, Building 201  
9700 South Cass Ave.  
Argonne, IL 60439

Name \_\_\_\_\_  
First Initial Last

Company \_\_\_\_\_

Mailing Address \_\_\_\_\_

City State Zip Country

Telephone \_\_\_\_\_ Email \_\_\_\_\_

The registration fee for this course is \$800 (\$700 if registered before **June 1, 2009**). Checks should be made payable to Argonne National Laboratory (credit cards accepted). The number of participants is limited to 30. Registration must be received by **June 12, 2009**. The participant list is subject to approval by DOE.

Send completed registration form and registration fee to:

Judy Benigno  
Argonne National Laboratory  
9700 South Cass Ave.  
Bldg. 201, Rm. 1H-12  
Argonne IL 60439  
**Phone: (630) 252-5586**  
Fax: (630) 252-5533  
E-mail: [jbenigno@anl.gov](mailto:jbenigno@anl.gov)

**Cancellation policy:** A processing fee of \$100 will be charged for cancellation until/on June 12, 2009. No refund will be issued after June 12, 2009.

To register on-line, please visit <http://www.dis.anl.gov>